Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously presented) A method for determining the presence or absence of a cancer in a patient, wherein the cancer is at least one of cervical cancer, breast cancer, ovarian cancer and lung cancer, the method comprising the steps of:

(a) determining the level of expression of hPygo2 gene as shown in SEQ ID NO:1 in a biological sample obtained from a patient, and

(b) comparing the level of hPygo2 gene expression in the biological sample to a predetermined cut-off value, wherein the predetermined cut-off value is the level of hPygo2 gene expression in a normal biological sample, to determine whether hPygo2 expression is higher in the biological sample;

therefrom determining the presence or absence of cancer in the patient.

2. (Previously presented) A method for monitoring the progression of a cancer in a patient, wherein the cancer is at least one of cervical cancer, breast cancer, ovarian cancer and lung cancer, the method comprising the steps of:

(a) determining the presence or absence of cancer in the patient according to the method of claim 1;

(b) repeating step (a) using a biological sample obtained from the patient at a subsequent time; and

(c) comparing the level of hPygo2 gene expression detected in step (b) to the level of hPygo2 gene expression detected in step (a); and therefrom monitoring the progression of the cancer in the patient.

3. (Cancelled)

4. (Previously presented) The method according to claim 1 wherein the cancer is ovarian cancer, and the biological sample comprises epithelial ovarian cells.

5-7. (Cancelled)

8. (Currently amended) The method according to claim 1 wherein the level of hPygo2 gene expression is determined by the amount of hPygo2 protein ~~defined by~~ as shown in SEQ ID NO:2.

9. (Cancelled)

10. (Currently amended) A kit for determining the presence or absence of a cancer, wherein the cancer is at least one of cervical cancer, breast cancer, ovarian cancer and lung cancer, in a patient according to the method of claim 1, the kit comprising a reagent capable of detecting hPygo2 protein in a biological sample obtained from the patient, and instructions for using the reagent to determine whether the level of hPygo2 gene expression in the biological sample is higher compared to a predetermined cut-off value, wherein the predetermined cut-off value is the level of hPygo2 gene expression in a normal biological sample, and wherein the reagent is an antibody or fragment thereof that binds specifically to hPygo2 protein in the region ~~defined by~~ set forth as amino acids 89-328 of SEQ ID NO:2, and therefrom determining the presence or absence of cancer in the patient.

11 - 56. (Cancelled)

57. (Previously presented) The method according to claim 1 wherein the cancer is breast cancer, and the biological sample comprises mammary cells.

58. (Previously presented) The method according to claim 1 wherein the cancer is cervical cancer, and the biological sample comprises cervical cells.

59. (Previously presented) The method according to claim 8 wherein the level of hPygo2 protein is determined using an antibody or a fragment thereof that binds specifically to hPygo2 protein.

60. (Cancelled)

61. (Currently amended) The method according to claim 58 wherein the level of hPygo2 gene expression is determined by the amount of hPygo2 protein ~~defined by~~ as shown in SEQ

ID NO:2 and wherein the level of hPygo2 protein is determined using an antibody or a fragment thereof that binds specifically to hPygo2 protein.

62-64. (Cancelled)

65. (Previously presented) The kit according to claim 10 wherein the cancer is ovarian cancer, and the biological sample comprises epithelial ovarian cells.

66. (Previously presented) The kit according to claim 10 wherein the cancer is breast cancer, and the biological sample comprises mammary cells.

67. (Previously presented) The kit according to claim 10 wherein the cancer is cervical cancer, and the biological sample comprises cervical cells.

68-69. (Cancelled)

70. (Currently amended) The method according to claim 2 wherein the level of hPygo2 gene expression is determined by the amount of hPygo2 protein ~~defined by~~ as shown in SEQ ID NO:2.

71. (Previously presented) The method according to claim 70 wherein the level of hPygo2 protein is determined using an antibody or a fragment thereof that binds specifically to hPygo2 protein.

72. (Previously presented) The method according to claim 2 wherein the cancer is ovarian cancer, and the biological sample comprises epithelial ovarian cells.

73. (Previously presented) The method according to claim 2 wherein the cancer is breast cancer, and the biological sample comprises mammary cells.

74. (Previously presented) The method according to claim 2 wherein the cancer is cervical cancer, and the biological sample comprises cervical cells.

75. (Currently amended) The method according to claim 74 wherein the level of hPygo2 gene expression is determined by the amount of hPygo2 protein ~~defined by~~ as shown in SEQ

ID NO:2 and wherein the level of hPygo2 protein is determined using an antibody or a fragment thereof that binds specifically to hPygo2 protein.

76. (Previously presented) The method according to claim 1 wherein the cancer is lung cancer, and the biological sample comprises lung cells.

77. (Previously presented) The method according to claim 2 wherein the cancer is lung cancer, and the biological sample comprises lung cells.

78. (Previously presented) The kit according to claim 10 wherein the cancer is lung cancer, and the biological sample comprises lung cells.

79. (Currently amended) The method according to claim 59 wherein the antibody or fragment thereof binds specifically to hPygo2 protein in the region ~~defined by~~ set forth as amino acids 89-328 of SEQ ID NO:2.

80. (Currently amended) The method according to claim 61 wherein the antibody or fragment thereof binds specifically to hPygo2 protein in the region ~~defined by~~ set forth as amino acids 89-328 of SEQ ID NO:2.

81. (Previously presented) The method according to claim 80 wherein the antibody or fragment thereof is a monoclonal antibody or fragment thereof.

82. (Currently amended) The method according to claim 58 wherein the level of hPygo2 gene expression is determined by the amount of hPygo2 protein ~~defined by~~ as shown in SEQ ID NO:2 and wherein the level of hPygo2 protein is determined using a polyclonal antibody that binds specifically to hPygo2 protein in the region ~~defined by~~ set forth as amino acids 89-328 of SEQ ID NO:2.

83. (Previously presented) The kit according to claim 10 wherein the antibody or fragment thereof is a monoclonal antibody or fragment thereof.

84. (Previously presented) The kit according to claim 67 wherein the antibody or fragment thereof is a monoclonal antibody or fragment thereof.

85. (Currently amended) The kit according to claim 10 wherein the reagent is a polyclonal antibody that binds specifically to hPygo2 protein in the region ~~defined by~~ set forth as amino acids 89-328 of SEQ ID NO:2.

86. (Currently amended) The kit according to claim 67 wherein the reagent is a polyclonal antibody that binds specifically to hPygo2 protein in the region ~~defined by~~ set forth as amino acids 89-328 of SEQ ID NO:2.

87. (Currently amended) An antibody or fragment thereof that binds specifically to hPygo2 protein in the region ~~defined by~~ set forth as amino acids 89-328 of SEQ ID NO:2.

88. (Currently amended) The antibody or fragment according to ~~claim 82~~ claim 87 wherein the antibody is a monoclonal antibody or fragment thereof.

89. (Previously presented) The antibody according to claim 87 wherein the antibody is a polyclonal antibody.